

深圳市睿联传感科技有限公司

SHENZHEN REALUNION SENSOR TECH CO., LTD.

SPECIFICATION

(产品规格书)



RLL2518光电流量传感器
(Photoelectric Flow Sensor)

版本 Version: V0.1

日期 Date: 2025/12/23

● 修订记录 / Revision History

No.	日期/Date	备注/Remark	修订/Revision
1	20251223	PP Version issue	V0.1

● 光电流量计原理 / Principle of Photoelectric Flowmeter

通过检测叶轮转动，输出每次叶轮经过检测点的脉冲，计数脉冲数可以得到当前流过传感器的流量

By detecting the rotation of the impeller, it outputs a pulse each time the impeller passes the detection point. Counting the pulses can give the current flow through the sensor.

● 应用场景 / Application Scenarios

1. 咖啡机/ Coffee Machine

在咖啡机的出水口安装霍尔流量计，配合咖啡机内置的配方，当用户在选择口味后，按照配方进行出水量、出糖量、出奶量和出咖啡量进行控制。给用户更好的使用感受和口味选择多样化。

Install a Hall flowmeter at the outlet of the coffee machine, combined with the built-in formula of the coffee machine. When the user selects a flavor, press Control the water output, sugar output, milk output, and coffee output according to the formula. Provide users with a better user experience and experience Diversified taste choices.

2. 果汁机/ Juicer

进行果汁出量的控制

Control the juice output

3. 热水器/ Heater

在用户进行出热水的操作是，检测到出水口有流量变化，此时可以做断电保护

When the user performs hot water operation and detects a change in flow rate at the outlet, power-off protection can be implemented

4. 洗衣机/ Washing Machine

在洗衣机加洗衣液的地方安装，用户使用不同模式，出洗衣液的多少可以调节

Installed at the place where the washing machine is filled with laundry detergent, the amount of laundry detergent can be adjusted by the user using different modes

5. 饮水机/ Water Dispenser

用于控制出水量

Used to control the water output

6. 宠物喂食机/Pet Feeding Machine

可以定量进行宠物补水的控制

Can quantitatively control pet hydration

7. 需要计算流量或流速的产品

Products that require flow or velocity calculation

● 产品优点 / Advantage

1. 传感器可检测微小流量，其可以在20ml/分钟的流量下进行检测。

The sensor can detect small flow rates and is capable of measuring flow at 20 ml/min.

2. 安装方便，可以直接替代传统流量传感器

Easy to install, can directly replace traditional flow sensors

3. 使用便捷，传感器的宽电压范围无需进行电压的转换

Easy to use, the wide voltage range of the sensor does not require voltage conversion

4. 精度高

High precision

● 选型表 / Selection Table

孔径	型号
0.8mm	RLL2518-08
1.0MM	RLL2518-10
MM	RLL2518-

选型注意事项/ Selection Precautions:

1. 当前管径0.8和1.0mm为常用型号，需要其他管径请与我司联系

The current pipe diameters of 0.8 and 1.0mm are commonly used models. If you need other pipe diameters, please contact our company

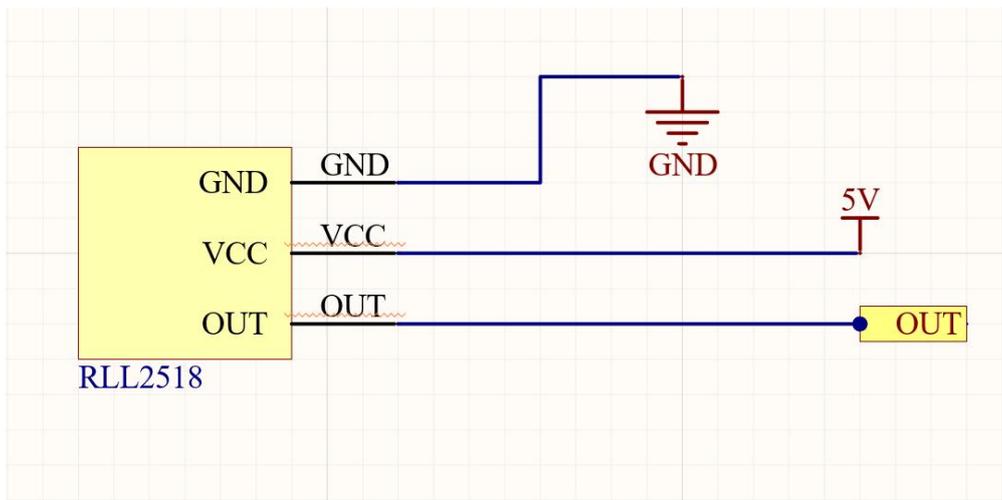
命名规则:

公司简称	产品类型，L代表流量计	结构件外径	结构高度	-	管径
RL	L	25	18	-	08 10 12 15 18

● 电气参数特性 / Electrical Specification (Ta=25°C)

参数//Parameter	符号/Symbol	典型值/Min	单位/units
工作电压/Supply Voltage	Vs	5	V
输出电压/Output Voltage	VOUT	5	V
输出电流/Output Current	OUT	10	mA
待机电流/Standby Current	Is	8	mA
工作温度/Operating Temperature	Topr	0 ~ +65	°C
存储温度/Storage Temperature	Tstg	-10 ~ +70	°C
工作寿命/Working Life	Life	50000	H
耐压力/Pressure resistant		0.1	MPa

● 推荐应用电路 / Recommended Application Circuit



● 注意事项 / Precautions

1. 正确接线，否则会烧坏流量计
Correct wiring, will it burn out the flowmeter
2. 不可在脉冲式水流中使用
Cannot be used in pulsed water flow
3. 输出脉冲信号，不可接负载
Output pulse signal, do not connect to load

● 尺寸和推荐安装 / Outline Drawing and Recommended Installatio

